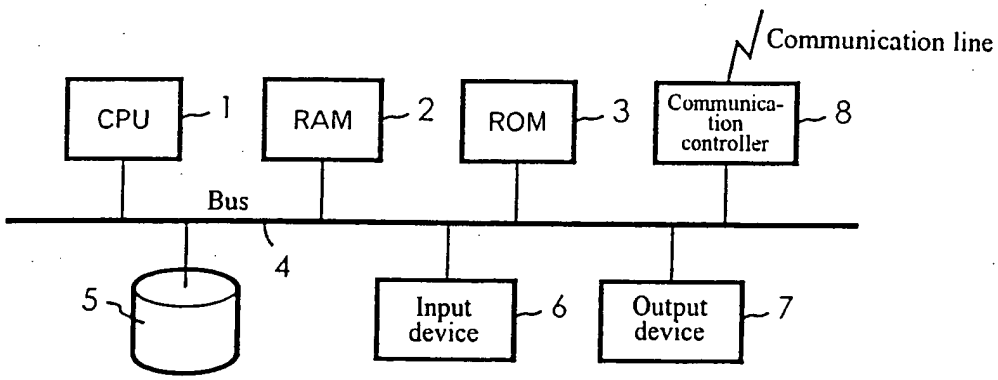
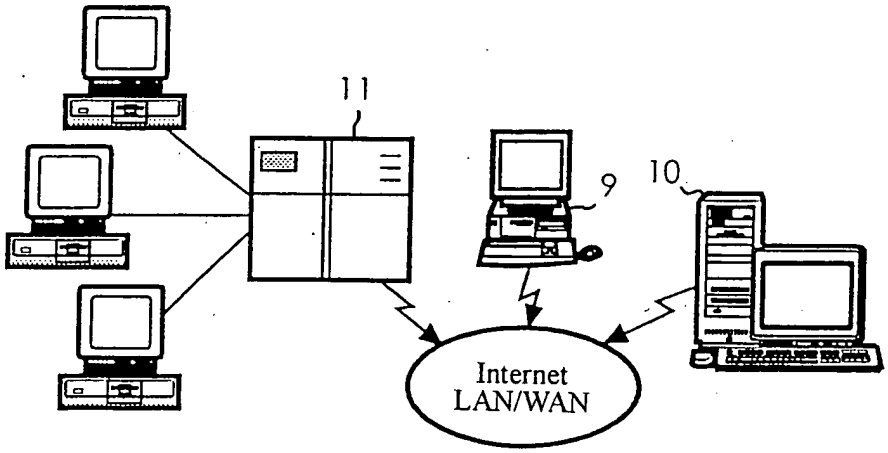
[Document type] Drawing

[Figure 1] (1/11)

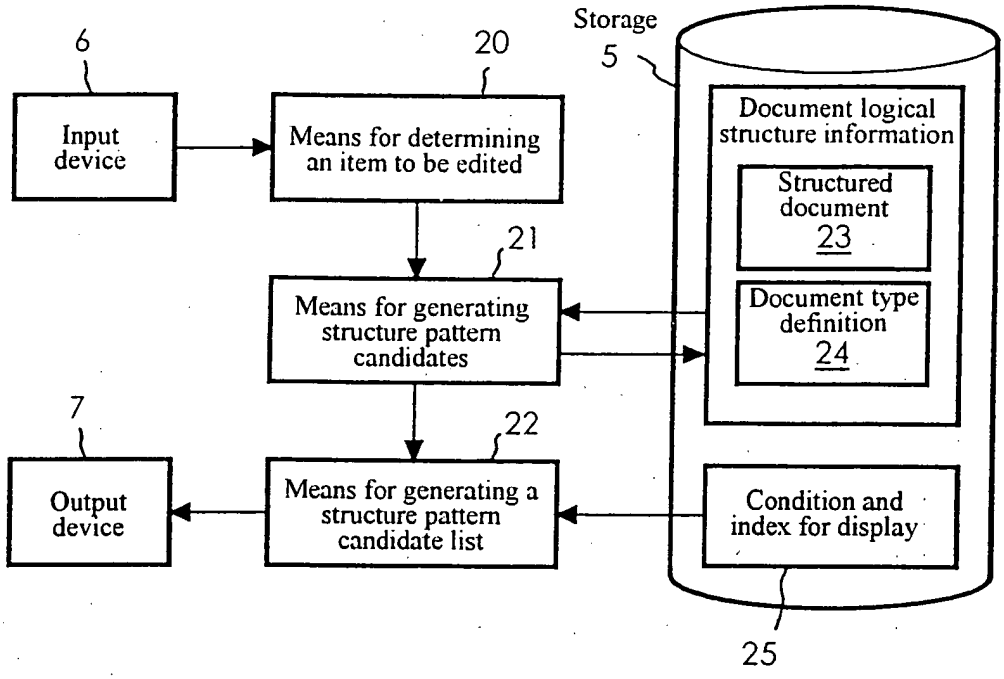
(a)



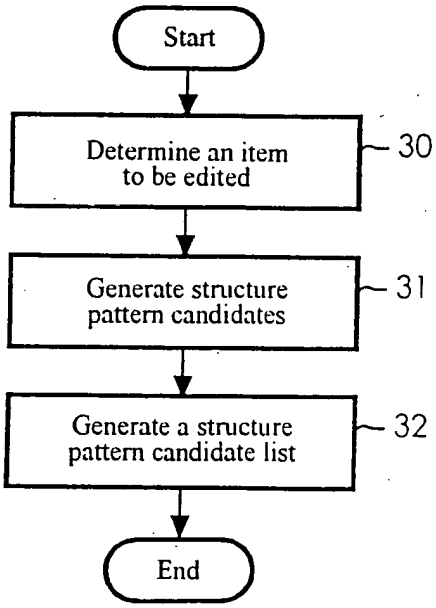
(b)



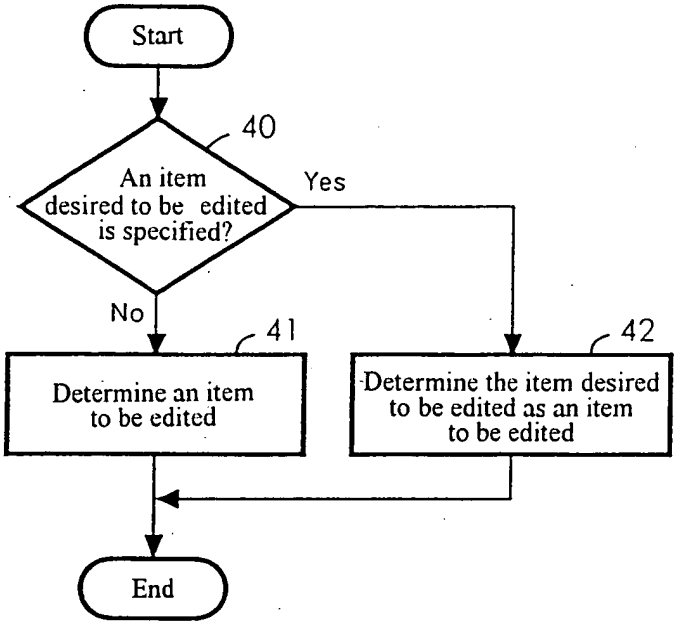
[Figure 2] (2/11)



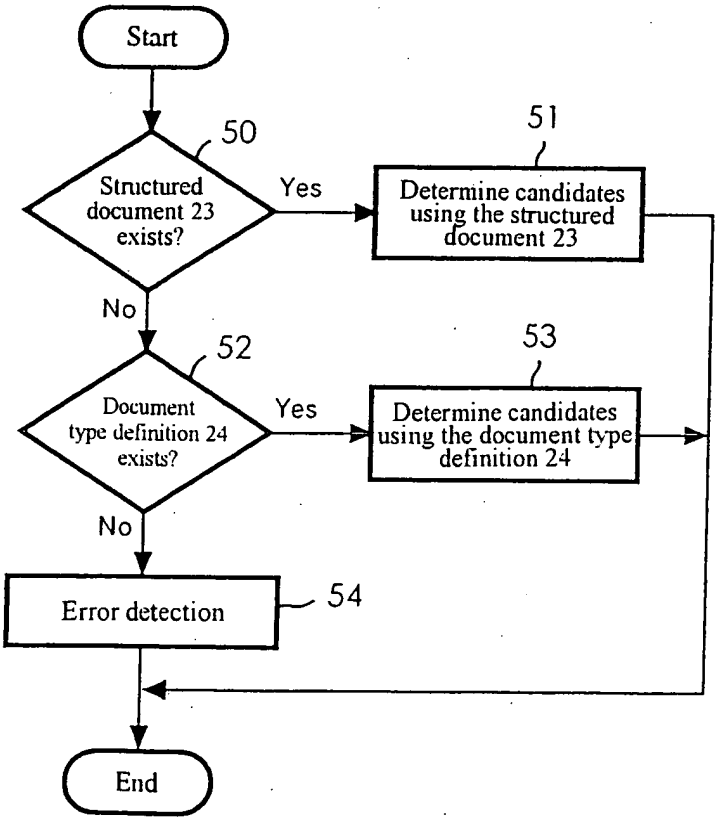
[Figure 3]



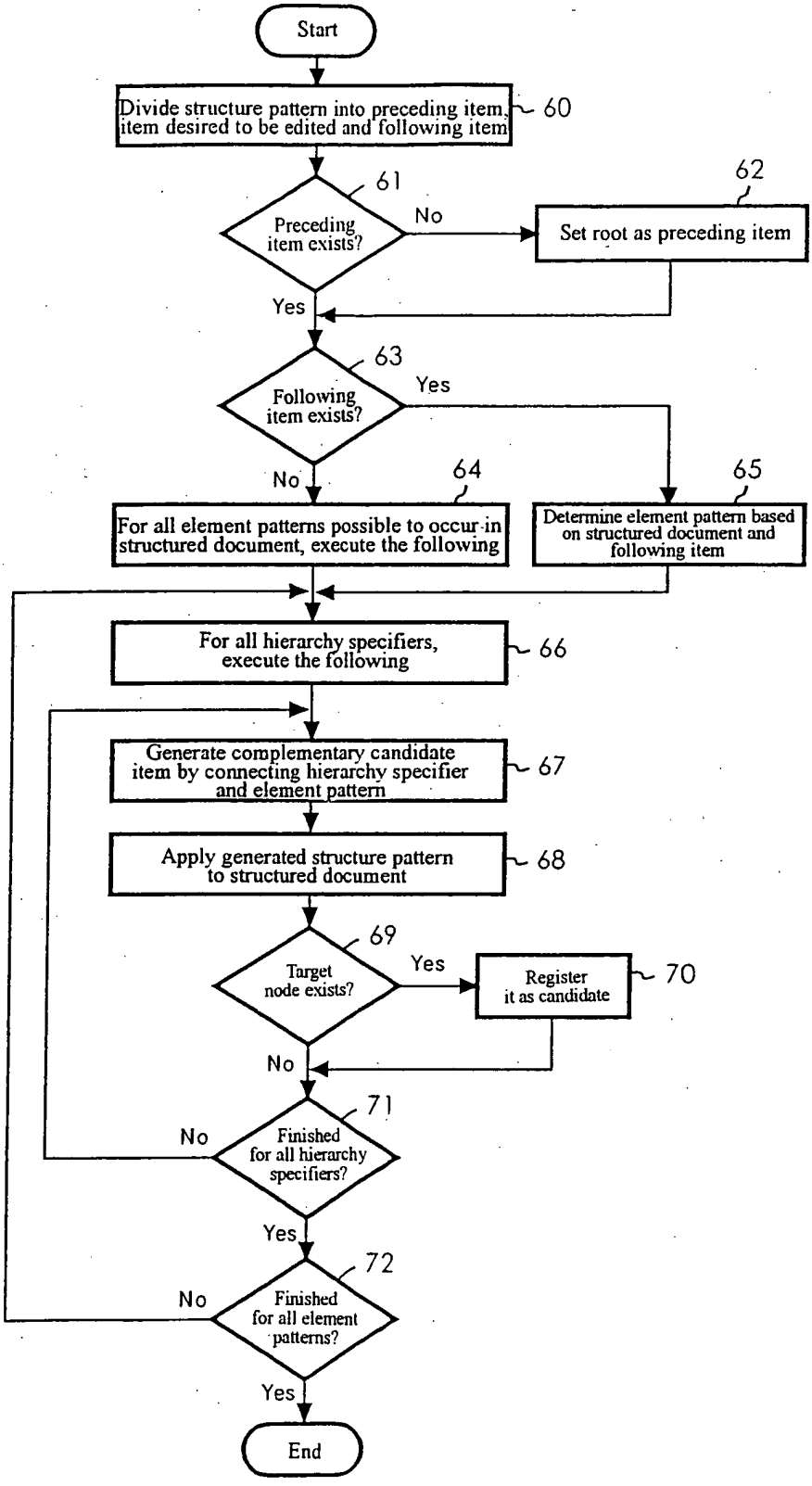
[Figure 4] (3/11)



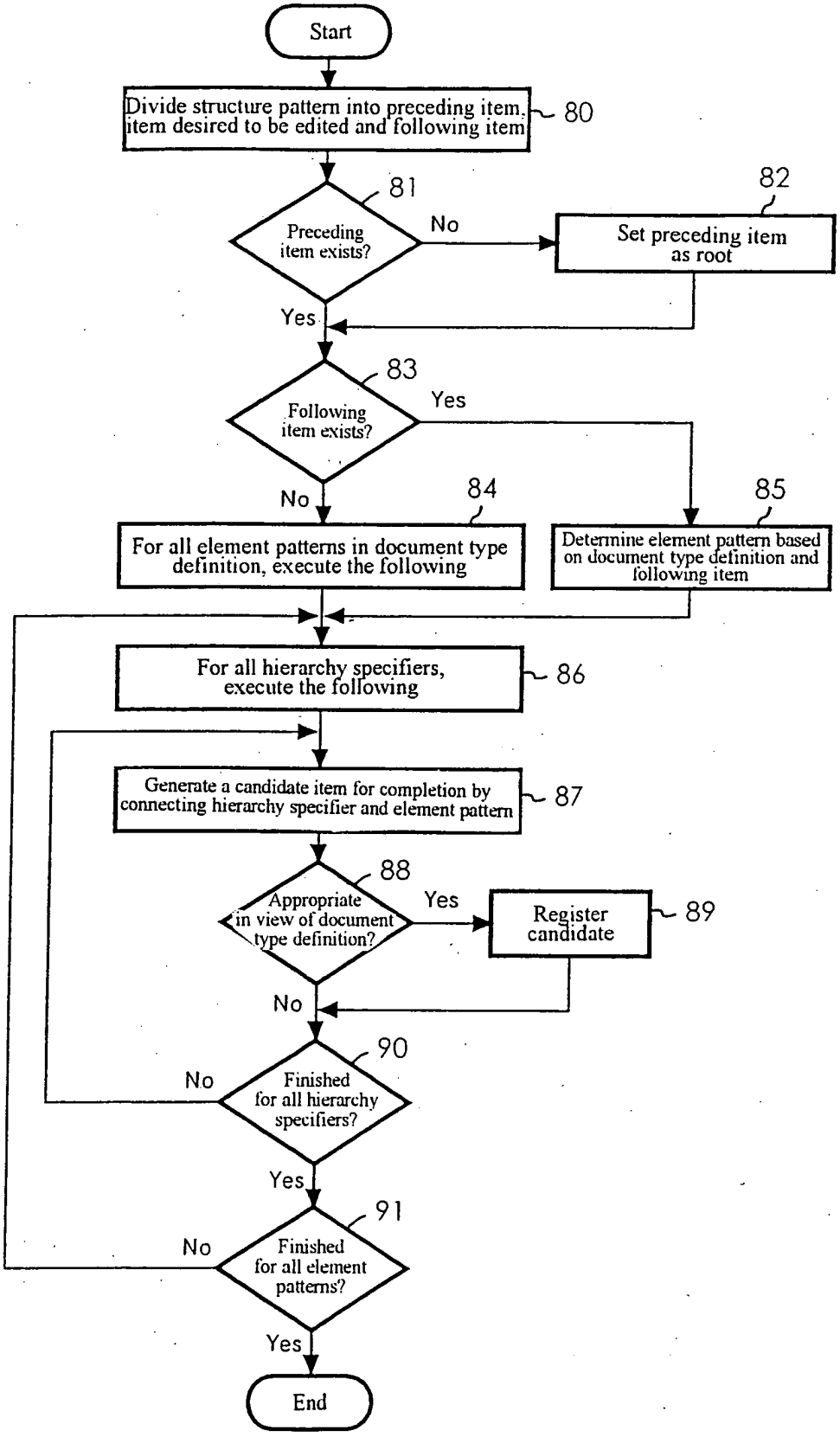
[Figure 5]



[Figure 6] (4/11)


Start
Divide structure pattern into preceding item, item desired to be edited and following item
60
61
Preceding item exists?
No
62
Set root as preceding item
Yes
63
Following item exists?
Yes
No
64
For all element patterns possible to occur in structured document, execute the following
65
Determine element pattern based on structured document and following item
For all hierarchy specifiers, execute the following
66
Generate complementary candidate item by connecting hierarchy specifier and element pattern
67
Apply generated structure pattern to structured document
68
69
Target node exists?
Yes
Register it as candidate
70
No
71
Finished for all hierarchy specifiers?
No
Yes
72
Finished for all element patterns?
No
Yes
End

[Figure 7] (5/11)


Start
Divide structure pattern into preceding item, item desired to be edited and following item
80
81
Preceding item exists?
No
82
Set preceding item as root
Yes
83
Following item exists?
Yes
No
84
For all element patterns in document type definition, execute the following
85
Determine element pattern based on document type definition and following item
For all hierarchy specifiers, execute the following
86
Generate a candidate item for completion by connecting hierarchy specifier and element pattern
87
88
Appropriate in view of document type definition?
Yes
Register candidate
89
No
90
No
Finished for all hierarchy specifiers?
Yes
91
No
Finished for all element patterns?
Yes
End

[Figure 8] (6/11)

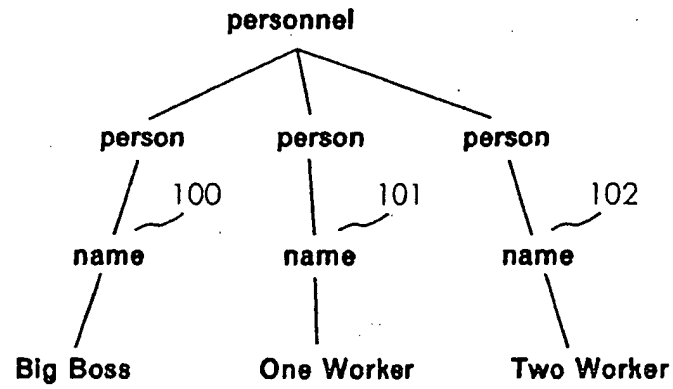
(a) personnel.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE personnel SYSTEM "personnel.dtd">
<personnel>
  <person>
    <name>Big Boss</name>
  </person>
  <person>
    <name>One Worker</name>
  </person>
  <person>
    <name>Two Worker</name>
  </person>
</personnel>
```

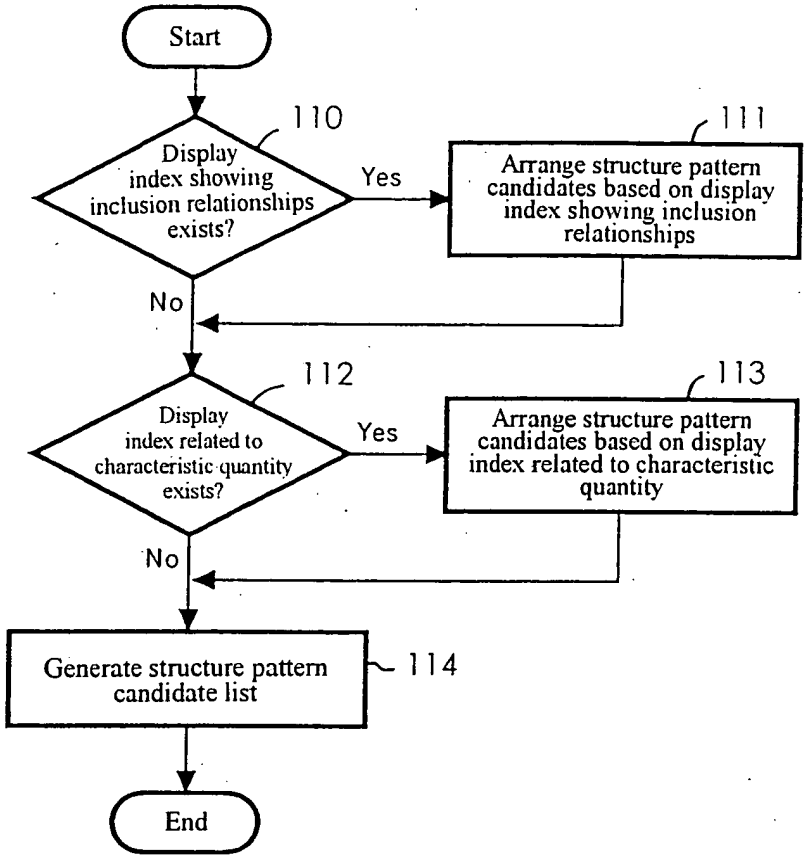
(b) personnel.dtd

```
<!ELEMENT personnel(person+)>
<!ELEMENT person(name+)>
<!ELEMENT name(#PCDATA)>
```

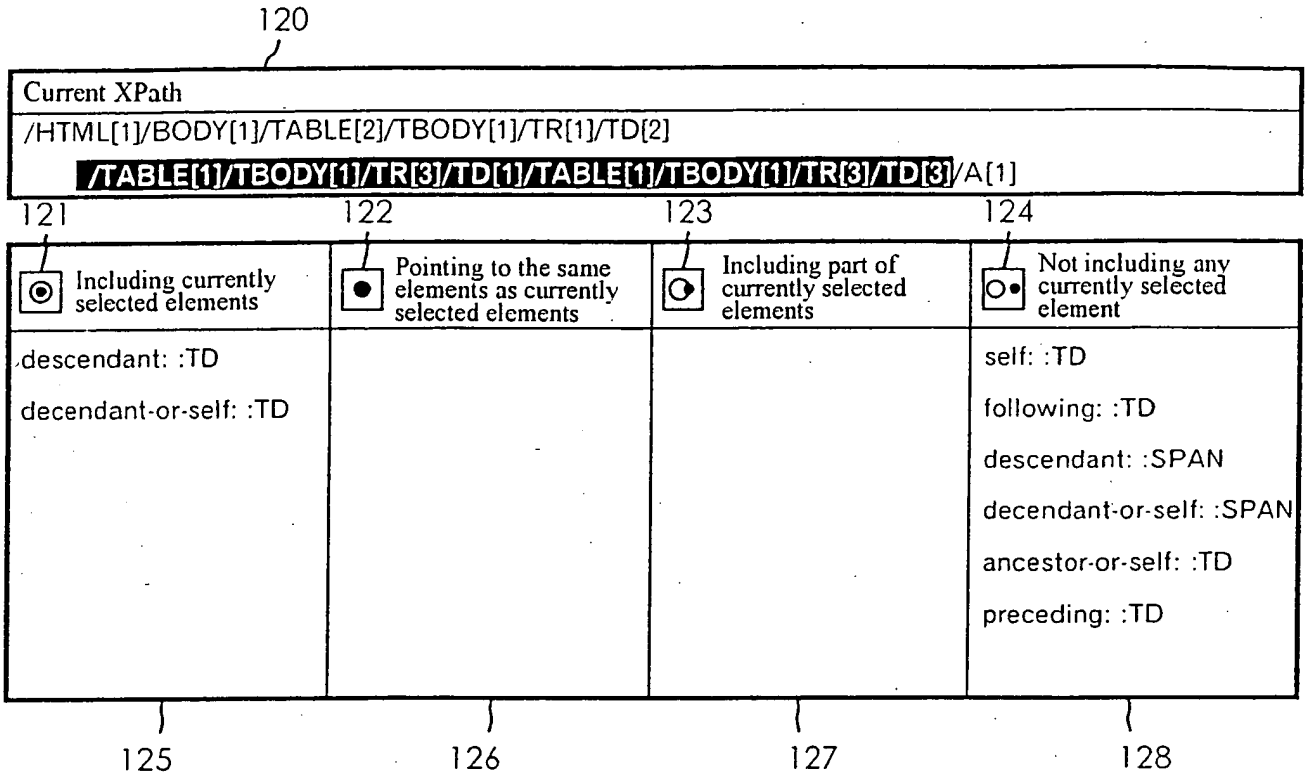
(c)



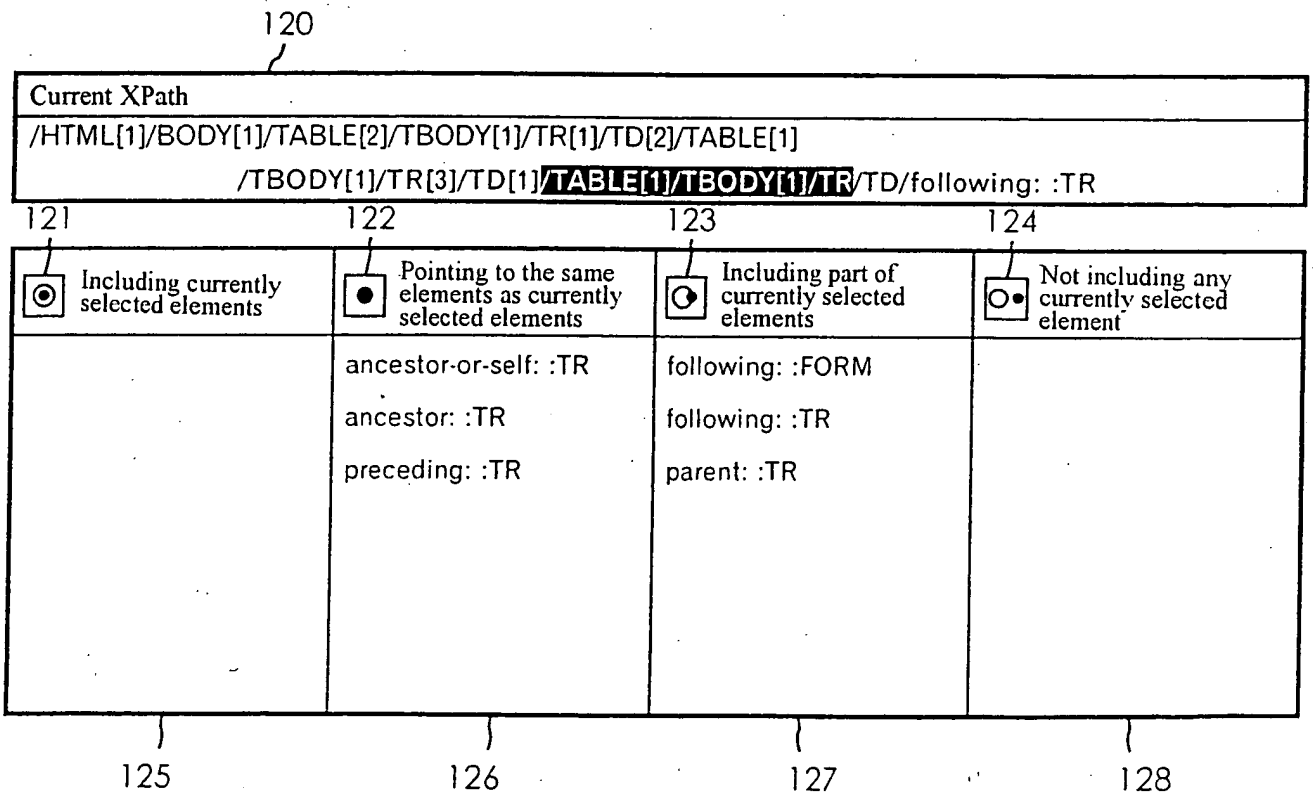
[Figure 9] (7/11)


Start
110
Display index showing inclusion relationships exists?
Yes
111
Arrange structure pattern candidates based on display index showing inclusion relationships
No
112
Display index related to characteristic quantity exists?
Yes
113
Arrange structure pattern candidates based on display index related to characteristic quantity
No
Generate structure pattern candidate list
114
End

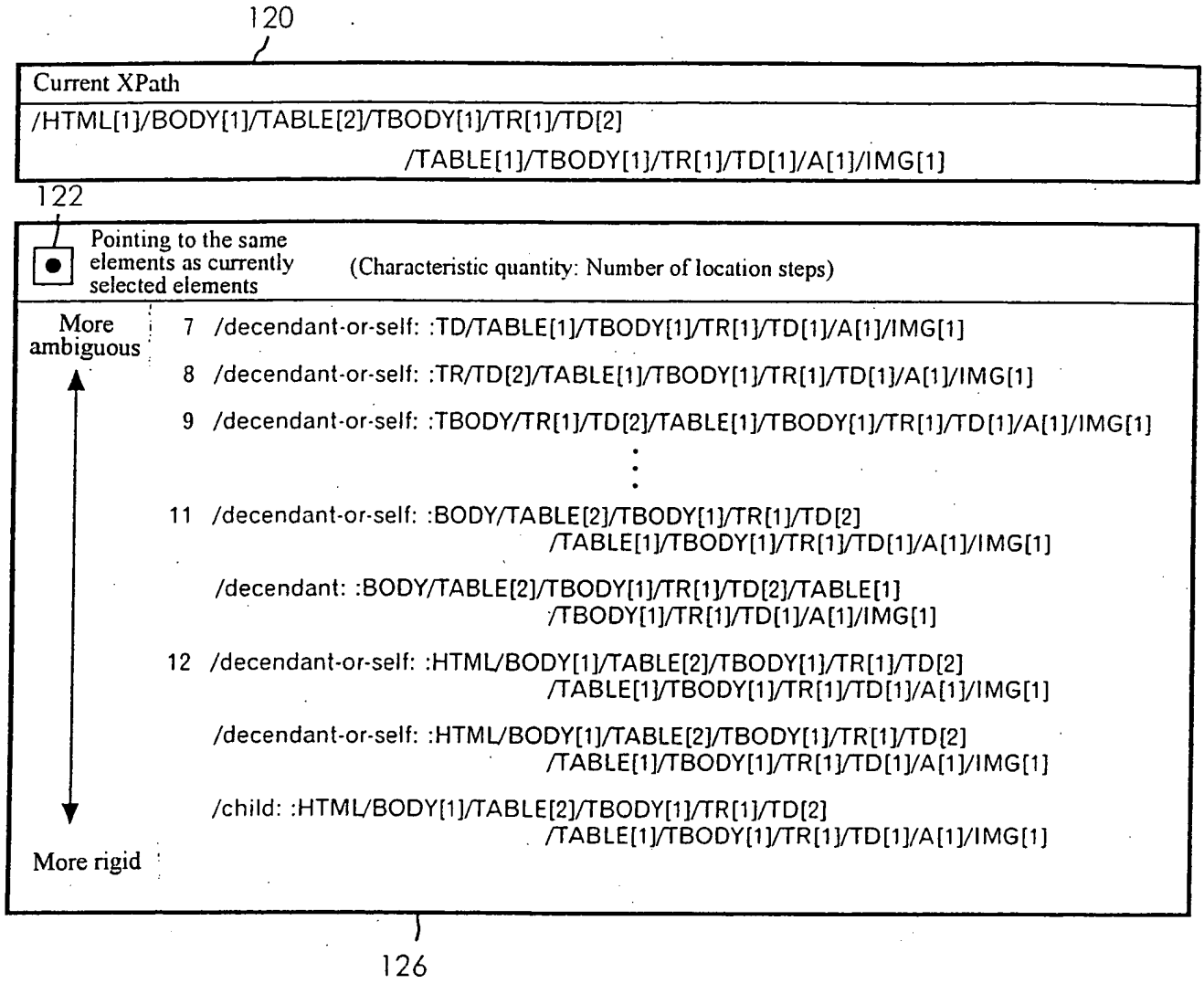
[Figure 10] (8/11)



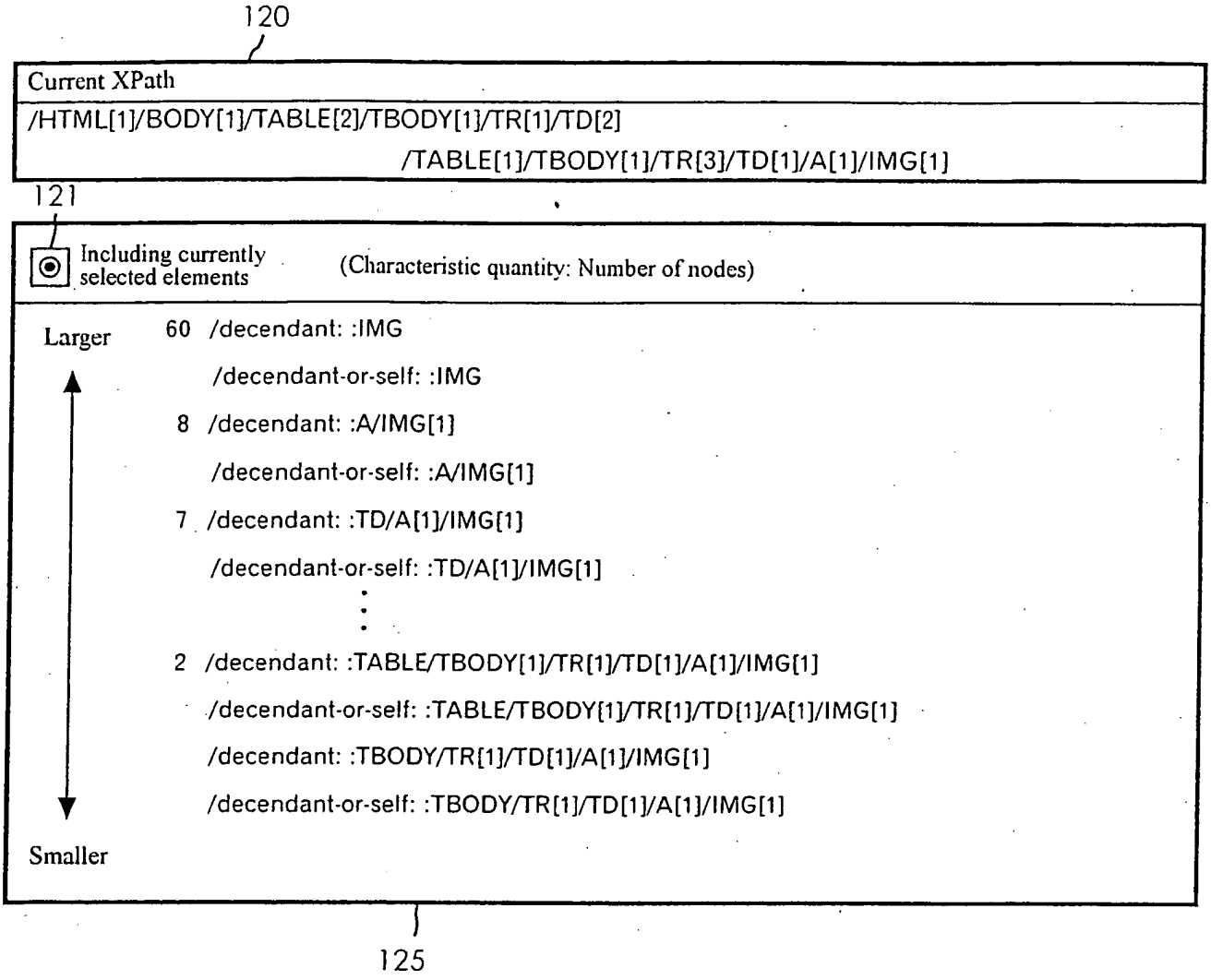
[Figure 11]



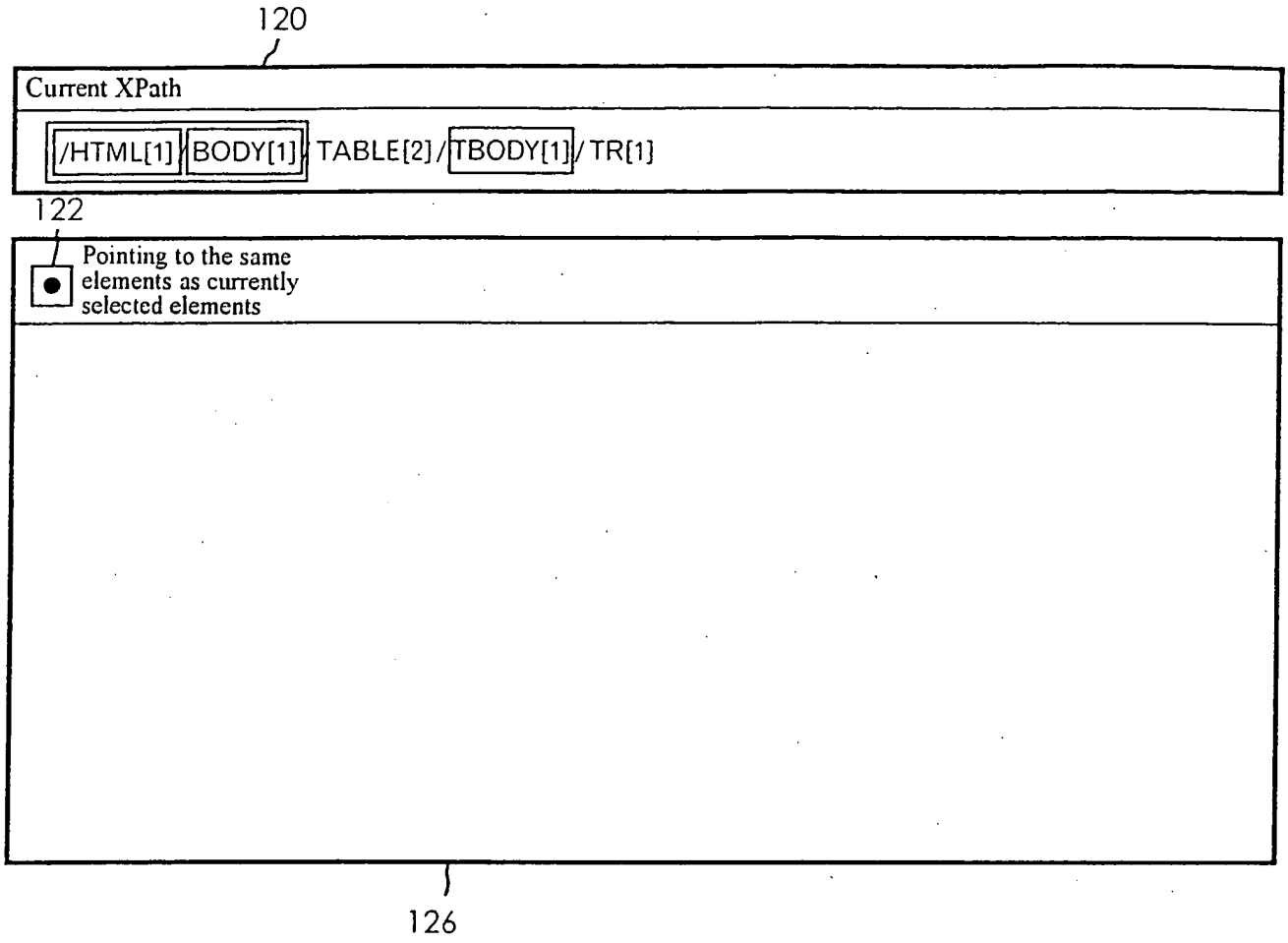
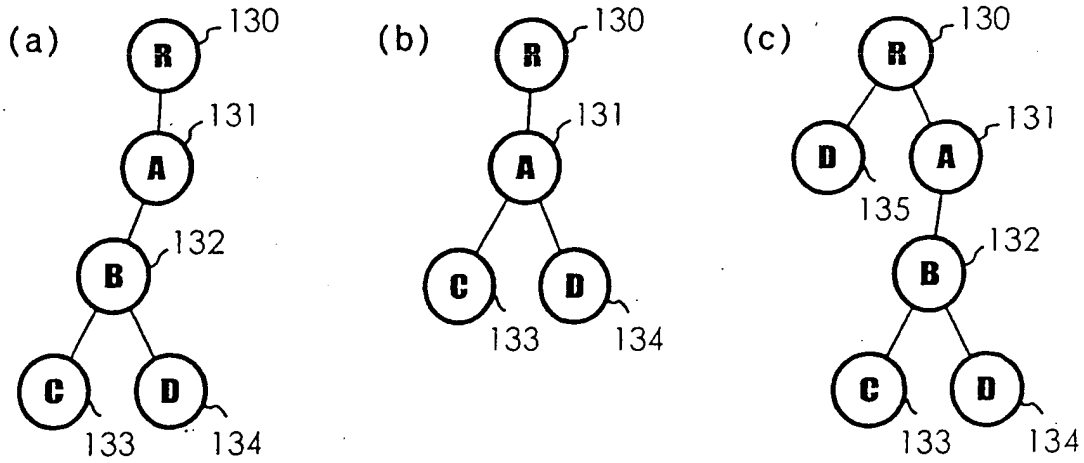
[Figure 12] (9/11)



[Figure 13]


120
Current XPath
/HTML[1]/BODY[1]/TABLE[2]/TBODY[1]/TR[1]/TD[2]
/TABLE[1]/TBODY[1]/TR[3]/TD[1]/A[1]/IMG[1]
121
Including currently selected elements
(Characteristic quantity: Number of nodes)
Larger
Smaller
60 /decendant: :IMG
/decendant-or-self: :IMG
8 /decendant: :A/IMG[1]
/decendant-or-self: :A/IMG[1]
7 /decendant: :TD/A[1]/IMG[1]
/decendant-or-self: :TD/A[1]/IMG[1]
2 /decendant: :TABLE/TBODY[1]/TR[1]/TD[1]/A[1]/IMG[1]
/decendant-or-self: :TABLE/TBODY[1]/TR[1]/TD[1]/A[1]/IMG[1]
/decendant: :TBODY/TR[1]/TD[1]/A[1]/IMG[1]
/decendant-or-self: :TBODY/TR[1]/TD[1]/A[1]/IMG[1]
125

[Figure 14] (11/11)



[Figure 15]